

PATENT

Attorney Docket No. SYNGEN-06069

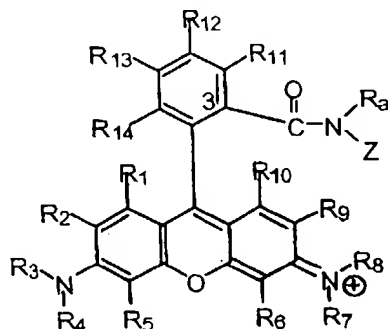
AMENDMENTS TO THE CLAIMS

The following is a listing of claims that replaces all prior versions, and listings, of claims in the application:

1-9. (Cancelled Without Prejudice)

10. (Previously Presented) A fluorophore conjugate comprising:

a conjugated substance and a fluorophore, the conjugated substance being an amino acid, peptide, protein, nucleotide, oligonucleotide, or nucleic acid to which is attached one or more fluorophores, the fluorophore conjugate having the structure illustrated by Formula 1

FORMULA 1

where R₁ and R₁₀ taken alone are hydrogen or halogen; R₂, R₅, R₆ and R₉ taken alone are hydrogen, alkyl, carboxyalkyl, aminoalkyl, alkylether, alkylthioether, halogen or alkoxy; R₃, R₄, R₇ and R₈ taken alone are hydrogen, an alkyl, carboxyalkyl, aminoalkyl, cycloalkyl, or aryl; R₂ and R₃ taken together are alkyl chains each having from 2 to 5 carbon atoms connecting the 2' carbon to the nitrogen attached to the 3' carbon; R₉ and R₈ taken together are alkyl chains each having from 2 to 5 carbon atoms connecting the 7' carbon to the nitrogen attached to the 6' carbon; R₄ and R₅ taken together are alkyl, each having from 2 to

PATENT

Attorney Docket No. SYNGEN-06069

5 carbon atoms connecting the 4' carbon to the nitrogen attached to the 3' carbon; R₆ and R₇ taken together are alkyl, each having from 2 to 5 carbon atoms connecting the 5' carbon to the nitrogen attached to the 6' carbon; R₃ and R₄ taken together form an alkyl or alkylene chain containing up to 5 atoms in the principal chain, consisting of carbon and one or more heteroatoms from the group consisting of nitrogen or oxygen, with both terminal valence bonds of said chain being attached to the nitrogen attached to the 3' carbon; R₇ and R₈ taken together form an alkyl or alkylene chain containing up to 5 atoms in the principal chain, consisting of carbon and one or more heteroatoms from the group consisting of nitrogen or oxygen, with both terminal valence bonds of said chain being attached to the nitrogen attached to the 6' carbon; R₁₁, R₁₂, R₁₃, and R₁₄ are each hydrogen or halogen, where R₉ is an alkyl, carboxyalkyl, aminoalkyl, cycloalkyl, and aryl, having from 1 to 10 carbon atoms, and Z represents a linker plus the conjugated substance, wherein said conjugated substance lacks a lactam ring.

11. (Original) The conjugate as in claim 10 wherein the conjugated substance is bound to the fluorophore through an amide, ester, ether, disulfide, or thioether linkage.
12. (Original) The conjugate as in claim 10 wherein the linkage between the fluorophore and conjugated substance has a phosphate ester.
13. (Original) The fluorescent conjugate as in claim 10 wherein the conjugated substance is attached to a solid support.
14. (Original) The fluorescent conjugate as in claim 13 wherein the solid support is controlled pore glass.
15. (Original) The fluorescent conjugate as in claim 13 wherein the solid support is a polymer support.
16. (Original) The fluorescent conjugate as in claim 10 wherein the conjugated substance is part of a cell membrane.

PATENTAttorney Docket No. **SYNGEN-06069**

17. (Original) The fluorescent conjugate as in claim 10 wherein the conjugated substance is part of a viral coat.
18. (Original) The fluorescent conjugate as in claim 10 wherein the fluorophore is derived from tetramethylrhodamine.
19. (Original) The fluorescent conjugate as in claim 10 wherein the fluorophore is derived from rhodamine 101.
20. (Original) The fluorescent conjugate as in claim 10 wherein the fluorophore is derived from rhodamine B.
- 21-23. (Cancelled Without Prejudice)